UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---|---|---|---|---|
| 09/315,102 | 05/20/1999 | DAVID W. STEBBINGS | 104706.111 | 6029 |

24395 7590 06/22/2004

WILMER CUTLER PICKERING HALE AND DORR LLP
THE WILLARD OFFICE BUILDING
1455 PENNSYLVANIA AVE, NW
WASHINGTON, DC 20004

| EXAMINER | |
|---|---|
| MOORTHY, ARAVIND K | |
| **ART UNIT** | **PAPER NUMBER** |
| 2131 | 19 |

DATE MAILED: 06/22/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

| Office Action Summary | Application No. 09/315,102 | Applicant(s) STEBBINGS, DAVID W. | |
|---|---|---|---|
| | Examiner Aravind K Moorthy | Art Unit 2131 | |

*-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --*

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

1)☒ Responsive to communication(s) filed on *23 March 2004*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

4)☒ Claim(s) *1-52* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☒ Claim(s) *11 and 25-29* is/are allowed.

6)☒ Claim(s) *1-10,12-24 and 30-52* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

**Application Papers**

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *9/24/03* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

## DETAILED ACTION

1. Claims 1-52 are pending in the application.

2. Claims 1-10, 12-24 and 30-52 have been rejected.

3. Claims 11 and 25-29 have been allowed.

### *Response to Arguments*

4. Applicant's arguments with respect to claims 1-14 have been considered but are moot in view of the new ground(s) of rejection.

### *Double Patenting*

A rejection based on double patenting of the "same invention" type finds its support in the language of 35 U.S.C. 101 which states that "whoever invents or discovers any new and useful process ... may obtain a patent therefor ..." (Emphasis added). Thus, the term "same invention," in this context, means an invention drawn to identical subject matter. See *Miller v. Eagle Mfg. Co.*, 151 U.S. 186 (1894); *In re Ockert*, 245 F.2d 467, 114 USPQ 330 (CCPA 1957); and *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970).

A statutory type (35 U.S.C. 101) double patenting rejection can be overcome by canceling or amending the conflicting claims so they are no longer coextensive in scope. The filing of a terminal disclaimer cannot overcome a double patenting rejection based upon 35 U.S.C. 101.

**5. Claims 1-9, 12, 13, 16-23, 30-36 and 38-42 are rejected under 35 U.S.C. 101 as claiming the same invention as that of claims 1-9, 12, 13 and 32-37 of prior U.S. Patent No. 6,636,689 B1. This is a double patenting rejection.**

As to claims 1, 12 and 16, Stebbings discloses reading the data from the media. Stebbings discloses detecting the modulation of the at least one modified modulation rule associated with the data. Stebbings discloses deriving an embedded authentication key or component thereof responsive to the detecting step. Stebbings discloses comparing the embedded authentication key or component thereof, to at least one authentication key or

component thereof. Stebbings discloses authenticating the at least one of the media and the data responsive to the comparing step. Stebbings discloses outputting the data as at least one of audio, video, audio data, video data and digital data substantially free of the modulation of the at least one modified modulation rule [column 29, lines 34-56].

As to claims 2, 17 and 30, Stebbings discloses that the deriving derives the embedded authentication key or component thereof as a combination of on-off binary codes representing ones and zeros to represent a predetermined symbol sequence [column 29, lines 57-61].

As to claims 3, 18 and 31, Stebbings discloses that the outputting step further includes the step of converting the data into a stereo analog signal without transferring, in the data, the modulation of the at least one modulation rule used to derive the embedded authentication key or component thereof [column 29, lines 62-67].

As to claims 4, 19 and 32, Stebbings discloses locating at least one modified modulation rule on at least one of a per track basis and interval basis throughout the media such that the authentication step is performed for at least one of each track to be played, throughout playback and throughout recording [column 30, lines 1-8].

As to claims 5, 20 and 33, Stebbings discloses that the authenticating step includes a step of authenticating using different authentication keys for each disc track [column 30, lines 9-12].

As to claims 6, 21 and 34, Stebbings discloses that the step of authenticating the at least one of the data and the media via at least two different authentication keys, each of which successively must be authenticated before said data is finally output via the outputting step [column 30, lines 13-17].

As to claim 7, Stebbings discloses authenticating the at least one of the media and the data over a plurality of interconnected computer networks comprising at least one of a local network, global network and the Internet [column 30, lines 18-21].

As to claims 8, 22 and 35, Stebbings discloses that the authenticating step further includes a step of using at least three different sources for compiling compound authentication keys [column 30, lines 22-25].

As to claims 9, 23 and 36, Stebbings discloses that the deriving step further comprises the step of at least one of decoding and decrypting the embedded authentication key or component thereof for subsequent authentication [column 30, lines 26-29].

As to claim 13, Stebbings discloses a method for authenticating at least one of a media and data to be stored on the media, in order to prevent at least one of piracy, unauthorized access and unauthorized copying of the data stored on the media. Stebbings discloses a data message comprising modulation via at least one modified modulation rule to generate at least one authentication key or component thereof for authenticating the data message. Stebbings discloses that the modified modulation rule cannot be readily altered, obscured nor removed from the data message without simultaneously degrading or impairing a quality of an audible component of the data message. Stebbings discloses that the data message is transmitted substantially free of the modified modulation rule thereby preventing a destination processor from reading and subsequently authenticating the data message [column 30, lines 30-35].

As to claim 38, Stebbings discloses locating at least one modified modulation rule on at least one of a per track basis and interval basis throughout the media such that the

authentication step is performed for at least one of each track to be played, throughout playback and throughout recording [column 32, lines 53-58].

As to claim 39, Stebbings discloses that the authenticating step includes a step of authenticating using different authentication keys for each disc track [column 32, lines 59-61].

As to claim 40, Stebbings discloses that the step of authenticating the at least one of the data and the media via at least two different authentication keys, each of which successively must be authenticated before said data is finally output via the outputting step [column 32, lines 62-65].

As to claim 41, Stebbings discloses that the authenticating step further includes a step of using at least three different sources for compiling compound authentication keys [column 33, lines 3-6].

As to claim 42, Stebbings discloses that the deriving step further comprises the step of at least one of decoding and decrypting the embedded authentication key or component thereof for subsequent authentication [column 33, lines 7-9].

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

**6. Claims 10, 24 and 37 are rejected under 35 U.S.C. 103(a) as being unpatentable over Stebbings U.S. Patent No. 6,636,689 B1 as applied to claims 1, 12 and 16 above, and further in view of Hogan U.S. Patent No. 5,828,754.**

As to claims 10, 24 and 37, Stebbings does not teach that the comparing step further comprises the step of comparing the at least one modified modulation rule comprising the at least one authentication key or component thereof, to at least one lookup table of valid modified modulation rule output values comprising the at least one authentication key or component thereof.

Hogan teaches a lookup table that contains modified modulation rules and authentication keys [column 5, lines 24-58].

Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified Stebbings so that the modified modulation rules and the authentication keys were contained in the lookup table.

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified Stebbings by the teaching of Hogan because the tables can be used for examining all possible alternatives to determine the best choices for minimizing DSV [column 5 line 64 to column 6 line 25].

**7. Claims 14, 15, 46, 47, 51 and 52 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kato et al U.S. Patent No. 6,301,663 B1 in view of Hogan U.S. Patent No. 5,828,754.**

As to claims 14 and 15, Kato et al discloses a system for authenticating at least one of a media and data stored on the media, in order to prevent at least one of piracy, unauthorized access and unauthorized copying of the data stored on the media, as discussed above. Kato et al discloses that the data stored on the media is modulated via at least one modified modulation rule to generate at least one authentication key or component thereof for authenticating at least one of

the media and the data, as discussed above. Kato et al discloses that the at least one of the media and the data may be outputted in an analog and/or audio form substantially error free and free of the at least one modified modulation rule by at least one of an error removal process and the at least one authentication key or component thereof, as discussed above. Kato et al suggests a focus servo, tracking servo, laser, lens and mirror, together comprising a portion of a disc reader housed in a data player device [column 1, lines 8-27].

Kato et al does not teach that the system includes a data player containing a data processor comprising a lookup table used by the data processor in intentionally modifying at least one modulation rule by which at least one bit indicative of the modifying is generated as at least one symbol used by the system to authenticate the at least one of the media and the data stored on the media.

Hogan teaches a system that includes a data player containing a data processor comprising a lookup table used by the data processor in intentionally modifying at least one modulation rule by which at least one bit indicative of the modifying is generated as at least one symbol used by the system to authenticate the at least one of the media and the data stored on the media, as discussed above.

Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified Kato et al so that the modified modulation rules and the authentication keys were contained in the lookup table.

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified Kato et al by the teaching of Hogan because the tables can

be used for examining all possible alternatives to determine the best choices for minimizing DSV [column 5 line 64 to column 6 line 25].

As to claims 46 and 51, Kato et al teaches that authentication occurs using at least three different sources for compiling compound authentication keys, as discussed above.

As to claims 47 and 52, Kato et al teaches that authentication occurs via decoding or decrypting the embedded authentication key or component thereof for subsequent authentication, as discussed above.

**8. Claims 43, 44, 48 and 49 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kato et al U.S. Patent No. 6,301,663 B1 and Hogan U.S. Patent No. 5,828,754 as applied to claims 15, and further in view of Chou et al U.S. Patent No. 5,337,357.**

As to claims 43, 44, 48 and 49, neither Kato et al nor Hogan teaches using different authentication keys for each disc track. Neither Kato et al nor Hogan teaches locating at least one modified modulation rule on at least one of a per track basis and interval basis throughout the media such that the authentication step is performed for at least one of each track to be played, throughout playback and throughout recording.

Chou teaches authenticating using a different authentication key or component thereof for each disc track [column 3, lines 18-25].

Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified the combination of Kato et al and Hogan so that each disc track would have used a different authentication key and the modulation rule would have been located per track for authentication as well.

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified the combination of Kato et al and Hogan by the teaching of Chou because it restricts the possibility to use a particular program only to those willing to pay for that program and to prevent others who have not obtained authorization from such use. For example, if the user must call in to get a key which is then used to run a particular distributed program and this key is the same for all copies of this program, there is nothing to prevent the caller from simply giving the key to a third party who then may access the program without paying for such use [column 1, lines 33-42].

**9. Claims 45 and 50 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kato et al U.S. Patent No. 6,301,663 B1 and Hogan U.S. Patent No. 5,828,754 as applied to claim 15 above, and further in view of O'Connor et al U.S. Patent No. 5,745,568.**

As to claims 45 and 50, the combination of Kato et al and Hogan teaches one authentication key, as discussed above.

The combination of Kato et al and Hogan does not teach the data and the media via at least two different authentication keys, each of which successively must be authenticated before said data is finally output via the outputting step.

O'Connor teaches the use of an authentication key formed by the recorded hardware ID [abstract].

Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified the combination of Kato et al and Hogan so that the key formed by the hardware ID would have been added to the CD. Both keys would have to be authenticated before the data would have outputted.

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified the combination of Kato et al and Hogan by the teaching of O'Connor because data security is furnished in a flexible manner so that a single specific computer or a specified class of systems is allowed access to data [column 2, lines 30-33].

***Allowable Subject Matter***

**10. Claims 11 and 25-29 are allowed.**

As to claim 11, Stebbings teaches a method for authenticating at least one of a media and data stored on the media, in order to prevent at least one of piracy, unauthorized access and unauthorized copying of the data stored on the media. Stebbings teaches a data disc comprising media containing at least one modified modulation rule comprising at least one authentication key or component thereof for authenticating at least one of the media and the data, all discussed above.

Neither Stebbings nor prior art teaches that the at least one of the media and the data may be outputted in at least one of an analog and audio form substantially error free and free of the at least one modified modulation rule by at least one of an error removal process and the at least one authentication key or component thereof. Neither Stebbings nor prior art teaches allowing a user to experience the media without experiencing the modulation rules removed therefrom via the error removal process.

Any claim not directly addressed is allowed due to the virtue of dependency.

***Conclusion***

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Aravind K Moorthy whose telephone number is 703-305-1373. The examiner can normally be reached on Monday-Friday, 8:00-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ayaz R Sheikh can be reached on 703-305-9648. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Aravind K Moorthy
June 10, 2004

AYAZ SHEIKH
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100